

REMARKS

Claims 1-27 are pending in the application.

Claims 1, 5, 7, 10-11, 21-25, and 27 have been amended to more particularly define the scope of the present invention and to facilitate prosecution of the instant application. Support for these amendments can be found in the specification as filed and, as such, no new matter has been added by these amendments.

Initially, Applications would like to thank the Examiner for the finding of allowable subject matter in Claims 1-27 of the application.

Objections Under 37 C.F.R. § 1.83(a)

In a first objection, the drawings are objected to under 37 C.F.R. § 1.83(a) as allegedly failing to show the every feature of the invention specified in the claims. More specifically, the Office Action states that the “support”, as recited in Claim 1, the “holder”, as recited in Claim 4, and the “bracket”, as recited in Claim 7, must be shown in the drawings or the respective feature is to be canceled from the claim(s).

Contrary to the instant objection, Applicants respectfully point out that each of these features are in fact shown in the Figures as filed with the present application. In Figure 2, the “support,” as recited in Claim 1, is shown by reference to feature 5 which depicts the ends of the sample support structure. Further description of this feature can be found on page 12, lines 1-4 and on page 13, lines 4-7 of the specification. Likewise, each of Figures 1 and 4 depict a “Holder” 10, as recited in Claim 4. Moreover, Figure 2 further also depicts a “Bracket,” as recited in Claim 7, by the express reference to a Bracket with dual stylus.

In a second objection pursuant to 37 C.F.R. § 1.83(a), Figure 1 is objected to due to the use of acronyms as labels for elements 12, 14, 16, 18, 19, 21, 22 and 28. Accordingly, Figure 1

has been corrected to replace the above mentioned acronyms with the appropriate corresponding terminology. Proposed corrections to Figure 1, showing changes marked in red ink, are submitted separately herewith for the Examiner's consideration in response to the objection under 37 C.F.R. § 1.83(a). Upon approval of these proposed drawing changes, Applicants will submit a formal drawing incorporating these changes. Support for the corrections can be found in the specification as filed and, as such, no new matter has been added.

In view of the foregoing Remarks, Applicants believe that the present objections to the drawings pursuant to 37 C.F.R. § 1.83(a) have been overcome or otherwise rendered moot and therefore respectfully request that these objections be withdrawn.

Objections Due to Informalities

The Office Action has objected to Claim 5 due to an informality. In view of the amendment to Claim 5 submitted herewith, Applicants respectfully requested that said objection is rendered moot and should therefore be withdrawn.

Rejections Under 35 U.S.C. § 112, second paragraph

Claims 1-27 of the instant application were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failure to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Although Applicants do not concede the Examiner's position, in view of the Amendments submitted herewith, it is respectfully requested that said rejections are rendered moot and should therefore be withdrawn.

CONCLUSION


Attached herewith is a marked-up version of the changes made to claims by the foregoing Amendments. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

In view of the Amendments and Remarks set out above, it is respectfully asserted that the rejections and objections set forth in the Office Action of November 6, 2002 have been overcome and that the application is in condition for allowance. Therefore, Applicants respectfully seek notification of same.

A credit card payment authorization form in the amount of \$465.00 is enclosed for the Three-Month Extension of Time. No additional fee is believed due; however, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

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CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence, including any items indicated as attached or included, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on the date indicated below.


Brian C. Meadows, Registration No. 50,848

5.6.03
Date

"VERSION WITH MARKINGS TO SHOW CHANGES MADE."

1. A sample preparation apparatus comprising a support, a microscope, a pattern-recognition assembly[and], a milling laser[coupled to the support], and a sample of interest.
5. The apparatus of claim 1, wherein the sample is a silicon wafer.
7. The apparatus of claim 6, further comprising a focused ion beam source [or FIB] for thinning the sample, and a transmission electron microscope [or TEM] for analyzing the sample, and a bracket for supporting the [TEM and FIB] transmission electron microscope and focused ion beam source.
10. The apparatus of claim 8, further comprising probes mounted on the bracket for mating with the holes on the block and for holding the block on its side on the bracket, and twin stylus on the bracket for engaging and lifting the block from the sample, transferring to the holder for thinning with the focused ion beam source [FIB] and transferring to the transmission electron microscope [TEM] for inspection and analysis without contamination of the block.
11. A sample preparation method comprising providing a sample wafer of interest on a support, cutting and extracting a desired nano-level portion from the wafer with a laser, holding and protecting the portion with a holder, placing the portion inside a focused ion beam source [FIB], thinning an area of interest on the portion with the focused ion beam source [FIB], and transferring the portion with the area of interest to a transmission electron microscope [TEM] and analyzing the portion with the transmission electron microscope [TEM].
21. The method of claim 18, wherein the moving comprises moving an arm with dual stylus of the micro-manipulator, engaging ends of the milled portion, extracting

the cut block from the wafer, placing the block in a transmission electron microscope [TEM] holder tip of a transmission electron microscope [TEM] holder.

22. The method of claim 21, further comprising finishing and thinning the sample strip by a focused ion beam source [FIB].
23. The method of claim 22, further comprising rotating the block by about 90° with the transmission electron microscope [TEM] holder and transferring the block to a transmission electron microscope [TEM] for analysis.
24. The method of claim 23, further comprising turning the area of interest on its edge, inspecting and analyzing the area of interest with the transmission electron microscope [TEM].
25. The method of claim 16, wherein the milling the block comprises forming a block of desired shape containing the sample strip in a selected area, forming the sample strip thinner than the block, and inspecting the sample strip with a transmission electron microscope [TEM].
27. The method of claim 26, further comprising fitting focused ion beam source [FIB] and transmission electron microscope [TEM] instruments on the bracket for automatically receiving the block without any contamination.